

CLAIMS

1. An alkaline battery comprising a positive electrode, a negative electrode and an alkaline electrolyte, said positive electrode comprising a positive electrode material mixture containing nickel oxyhydroxide, electrolytic manganese dioxide and a graphite conductive material,

wherein said nickel oxyhydroxide comprises a crystal having a β type structure, said crystal having manganese dissolved therein, and the amount of said manganese contained in said nickel oxyhydroxide is 0.5 to 10 mol% relative to the total amount of nickel and said manganese contained in said nickel oxyhydroxide.

2. An alkaline battery comprising a positive electrode, a negative electrode and an alkaline electrolyte, said positive electrode comprising a positive electrode material mixture containing nickel oxyhydroxide, electrolytic manganese dioxide and a graphite conductive material,

wherein, when a molded article comprising a mixture of said nickel oxyhydroxide and said graphite conductive material is immersed in an aqueous solution containing 40 wt% KOH and a constant current per gram of said nickel oxyhydroxide of 5 mA is applied to said molded article, the

potential of said molded article has a first plateau region ranging from +500 to +100 mV relative to an Hg/HgO electrode and a second plateau region ranging from +100 to -400 mV relative to said Hg/HgO electrode,

the discharge capacity per gram of said nickel oxyhydroxide in said first plateau region is 220 to 250 mAh, and the discharge capacity per gram of said nickel oxyhydroxide in said second plateau region is 10 to 25 mAh.

3. The alkaline battery in accordance with claim 1, wherein the amount of said nickel oxyhydroxide is 10 to 80 wt% relative to the total amount of said nickel oxyhydroxide and said electrolytic manganese dioxide contained in said positive electrode material mixture, and the amount of said electrolytic manganese dioxide is 20 to 90 wt% relative to said total amount.

4. The alkaline battery in accordance with claim 2, wherein the amount of said nickel oxyhydroxide is 10 to 80 wt% relative to the total amount of said nickel oxyhydroxide and said electrolytic manganese dioxide contained in said positive electrode material mixture, and the amount of said electrolytic manganese dioxide is 20 to 90 wt% relative to said total amount.

5. The alkaline battery in accordance with claim 1, wherein the amount of said graphite conductive material is 3 to 10 wt% relative to the total amount of said

nickel oxyhydroxide, said electrolytic manganese dioxide and said graphite conductive material contained in said positive electrode material mixture.

6. The alkaline battery in accordance with claim 2, wherein the amount of said graphite conductive material is 3 to 10 wt% relative to the total amount of said nickel oxyhydroxide, said electrolytic manganese dioxide and said graphite conductive material contained in said positive electrode material mixture.

7. The alkaline battery in accordance with claim 1, wherein said positive electrode material mixture further contains at least one rare earth metal oxide selected from the group consisting of Y_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 and Lu_2O_3 , and the amount of said rare earth metal oxide is 0.1 to 2 wt% relative to the total amount of said nickel oxyhydroxide, said electrolytic manganese dioxide, said graphite conductive material and said rare earth metal oxide.

8. The alkaline battery in accordance with claim 2, wherein said positive electrode material mixture further contains at least one rare earth metal oxide selected from the group consisting of Y_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 and Lu_2O_3 , the amount of said rare earth metal oxide is 0.1 to 2 wt% relative to the total amount of said nickel oxyhydroxide, said electrolytic manganese dioxide, said graphite conductive material and said rare earth metal oxide.